

# United States Patent and Trademark Office

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

FIRST NAMED INVENTOR ATTORNEY DOCKET NO. CONFIRMATION NO. FILING DATE APPLICATION NO. 03/26/2004 Susumu Uehara 645-154A 8529 10/810,266 EXAMINER 7590 03/22/2006 47888 BOLDEN, ELIZABETH A **HEDMAN & COSTIGAN P.C.** 1185 AVENUE OF THE AMERICAS PAPER NUMBER ART UNIT NEW YORK, NY 10036 1755

DATE MAILED: 03/22/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

			<i>D</i>
	Application No.	Applicant(s)	
	10/810,266	UEHARA, SUSUMU	
Office Action Summary	Examiner	Art Unit	
	Elizabeth A. Bolden	1755	
The MAILING DATE of this communication Period for Reply	appears on the cover sheet w	vith the correspondence address	
A SHORTENED STATUTORY PERIOD FOR REWHICHEVER IS LONGER, FROM THE MAILING  - Extensions of time may be available under the provisions of 37 CFR after SIX (6) MONTHS from the mailing date of this communication.  - If NO period for reply is specified above, the maximum statutory per  - Failure to reply within the set or extended period for reply will, by state Any reply received by the Office later than three months after the maximum patent term adjustment. See 37 CFR 1.704(b).	C DATE OF THIS COMMUN R 1.136(a). In no event, however, may a riod will apply and will expire SIX (6) MC atute, cause the application to become a	ICATION. a reply be timely filed  INTHS from the mailing date of this communication. ABANDONED (35 U.S.C. § 133).	
Status			
1)⊠ Responsive to communication(s) filed on 20 2a)□ This action is <b>FINAL</b> . 2b)⊠ T  3)□ Since this application is in condition for allocation accordance with the practice under the condition of the condit	This action is non-final. wance except for formal ma		
Disposition of Claims			
4)  Claim(s) 1-6 is/are pending in the application 4a) Of the above claim(s) is/are without 5)  Claim(s) is/are allowed. 6)  Claim(s) 1-6 is/are rejected. 7)  Claim(s) is/are objected to. 8)  Claim(s) are subject to restriction an  Application Papers  9)  The specification is objected to by the Example 10) The drawing(s) filed on is/are: a) applicant may not request that any objection to the Replacement drawing sheet(s) including the corestriction is objected to by the	drawn from consideration.  d/or election requirement.  niner.  accepted or b) objected to the drawing(s) be held in abeyarection is required if the drawing	ance. See 37 CFR 1.85(a). g(s) is objected to. See 37 CFR 1.121(d)	
Priority under 35 U.S.C. § 119			
12) Acknowledgment is made of a claim for fore a) All b) Some * c) None of:  1. Certified copies of the priority documents.  2. Certified copies of the priority documents.  3. Copies of the certified copies of the priority documents.  * See the attached detailed Office action for a	ents have been received. ents have been received in priority documents have been reau (PCT Rule 17.2(a)).	Application No. <u>10/159,471</u> . n received in this National Stage	
Attachment(s)  1) Notice of References Cited (PTO-892)  2) Notice of Draftsperson's Patent Drawing Review (PTO-948)  3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/Paper No(s)/Mail Date 3/26/04.	Paper No	Summary (PTO-413) o(s)/Mail Date Informal Patent Application (PTO-152) 	

Art Unit: 1755

### **DETAILED ACTION**

### Information Disclosure Statement

The information disclosure statement (IDS) submitted on 26 March 2004 has been considered by the Examiner.

## Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

- (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
- (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-6 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Uehara, U.S. Patent Application Publication 2003/0022782 A1.

Uehara discloses an optical glass in Examples 1-12, 18, 19, and 24-26, which anticipates all the claim limitations of instant claims 2, 3, 5, and 6. See Tables 1-4. Uehara discloses an optical glass in Examples 1, 6, and 12, which anticipates all the claim limitations of instant claims 1 and 4. See Tables 1 and 2.

Claims 1 and 4 are rejected under 35 U.S.C. 102(e) as being clearly anticipated by Kikuchi et al., U.S. Patent 6,558,316 B2.

Kikuchi et al. disclose an optical glass of Example 14, which anticipates the compositional, refractive index, and Abbe Number limitations of claim 1. See Example 14, Table 1 and the conversion table below.

Since the composition of the reference is the same as those claimed herein it follows that the glasses of Kikuchi et al. would inherently possess the same T<sub>g</sub>, yield

Art Unit: 1755

point, devitrification, and difference in temperature between the  $T_g$  and the yield point properties as recited in claim 4. See MPEP 2112.

	SiO <sub>2</sub>	B <sub>2</sub> O <sub>3</sub>	Al <sub>2</sub> O <sub>3</sub>	Li <sub>2</sub> O	ZnO	ZrO <sub>2</sub>	La <sub>2</sub> O <sub>3</sub>	Ta <sub>2</sub> O <sub>5</sub>	Nb <sub>2</sub> O <sub>5</sub>	WO <sub>3</sub>	Sb <sub>2</sub> O <sub>3</sub>
Mol%	12	35	0.1	3	26	4.8	13	1	3	2	0.1
Wt%	6.0	20.4	0.1	0.8	17.7	4.9	35.5	3.7	6.7	3.9	0.2

### Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 2, 3, 5, and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kikuchi et al., U.S. Patent 6,558,316 B2.

Kikuchi et al. disclose an optical glass of Example 14, which anticipates the compositional, refractive index, and Abbe Number limitations of claim 1. See Example 14, Table 1 and the above rejection.

Kikuchi et al. teach the optical glass composition in terms of mol percent. See column 3, lines 28-44.

Kikuchi et al. fail to teach the optical glass composition in terms of weight percent.

However, it is believed that the mole percent ranges disclosed by Kikuchi et al. if converted to weight percent would have overlapping compositional ranges with instant claim 2. See column 3, lines 28-44. Overlapping ranges have been held to establish *prima facia* obviousness. MPEP 2144.05.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have selected from the overlapping portion of the ranges disclosed by the reference because overlapping ranges have been held to establish *prima facie* obviousness. See MPEP 2144.05.

Art Unit: 1755

One of ordinary skill in the art would expect that a glass with overlapping compositional ranges would have the same  $T_g$ , yield point, devitrification, and difference in temperature between the  $T_g$  and the yield point properties recited in claims 2, 3, 5, and 6. See above rejection.

Claims 1- 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hayashi et al., U.S. Patent 6,977,232 B2.

Hayashi et al. teach the optical glass composition in terms of mol percent. See Abstract and column 2, line 55 to column 3, line 26. Hayashi et al. teach that the optical glass has overlapping ranges of refractive index, Abbe Number, and T<sub>g</sub>. See Abstract and column 3, lines 11-18.

Hayashi et al. fail to teach the optical glass composition in terms of weight percent.

However, it is believed that the mole percent ranges disclosed by Hayashi et al. if converted to weight percent would have overlapping compositional ranges with instant claims 1 and 2. See Abstract, column 2, line 55 to column 3, line 26, and below theoretical composition. Overlapping ranges have been held to establish *prima facia* obviousness. MPEP 2144.05.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have selected from the overlapping portion of the ranges disclosed by the reference because overlapping ranges have been held to establish *prima facie* obviousness. See MPEP 2144.05.

One of ordinary skill in the art would expect that a glass with overlapping compositional ranges would have the same yield point, devitrification, and difference in temperature between the  $T_g$  and the yield point properties recited in claims 1-6. See above rejection.

	SiO <sub>2</sub>	B <sub>2</sub> O <sub>3</sub>	Li <sub>2</sub> O	ZnO	ZrO <sub>2</sub>	La <sub>2</sub> O <sub>3</sub>	Ta <sub>2</sub> O <sub>5</sub>	Nb <sub>2</sub> O <sub>5</sub>	WO <sub>3</sub>	Gd <sub>2</sub> O <sub>3</sub>
Mol%	10.0	38.0	3.0	28.0	2.0	10.0	2.0	2.0	3.0	2.0
Wt%	5.1	22.2	0.8	19.2	2.1	27.4	7.4	3.9	5.9	6.1

Art Unit: 1755

Claims 1- 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hayashi et al., U.S. Patent 6,844,279 B2.

Hayashi et al. teach the optical glass composition in terms of mol percent. See Abstract, column 2, lines 24-40, and column 7, lines 19-34. Hayashi et al. teach that the optical glass has overlapping ranges of refractive index, Abbe Number, and  $T_g$ . See Abstract and column 2, lines 25-40.

Hayashi et al. fail to teach the optical glass composition in terms of weight percent.

However, it is believed that the mole percent ranges disclosed by Hayashi et al. if converted to weight percent would have overlapping compositional ranges with instant claims 1 and 2. See Abstract, column 2, lines 24-40, column 7, lines 19-34, and below theoretical composition. Overlapping ranges have been held to establish *prima facia* obviousness. MPEP 2144.05.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have selected from the overlapping portion of the ranges disclosed by the reference because overlapping ranges have been held to establish *prima facie* obviousness. See MPEP 2144.05.

One of ordinary skill in the art would expect that a glass with overlapping compositional ranges would have the same yield point, devitrification, and difference in temperature between the  $T_g$  and the yield point properties recited in claims 1-6. See above rejection.

	SiO <sub>2</sub>	B <sub>2</sub> O <sub>3</sub>	Li <sub>2</sub> O	ZnO	ZrO <sub>2</sub>	La <sub>2</sub> O <sub>3</sub>	Ta <sub>2</sub> O <sub>5</sub>	Nb <sub>2</sub> O <sub>5</sub>	WO <sub>3</sub>	Gd <sub>2</sub> O <sub>3</sub>
Mol%	2.0	45.0	3.0	26.5	2.1	10.0	1.9	3.0	3.0	3.5
Wt%	1.0	25	0.7	17.2	2.0	26.0	6.7	5.6	5.6	10.2

Claims 1- 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hayashi et al., U.S. Patent Application Publication 2003/0211929 A1.

Art Unit: 1755

Hayashi et al. teach the optical glass composition in terms of mol percent. See Abstract and Paragraphs [0013]-[0016]. Hayashi et al. teach that the optical glass has overlapping ranges of refractive index, Abbe Number, and T<sub>g</sub>. See Abstract and paragraphs [0013]-[0015].

Hayashi et al. fail to teach the optical glass composition in terms of weight percent.

However, it is believed that the mole percent ranges disclosed by Hayashi et al. if converted to weight percent would have overlapping compositional ranges with instant claims 1 and 2. See Abstract and Paragraphs [0013]-[0016], and below theoretical composition. Overlapping ranges have been held to establish *prima facia* obviousness. MPEP 2144.05.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have selected from the overlapping portion of the ranges disclosed by the reference because overlapping ranges have been held to establish *prima facie* obviousness. See MPEP 2144.05.

One of ordinary skill in the art would expect that a glass with overlapping compositional ranges would have the same yield point, devitrification, and difference in temperature between the  $T_{\rm g}$  and the yield point properties recited in claims 1-6. See above rejection.

	SiO <sub>2</sub>	B <sub>2</sub> O <sub>3</sub>	Li <sub>2</sub> O	ZnO	ZrO <sub>2</sub>	La <sub>2</sub> O <sub>3</sub>	Ta <sub>2</sub> O <sub>5</sub>	Nb <sub>2</sub> O <sub>5</sub>	WO <sub>3</sub>	Gd <sub>2</sub> O <sub>3</sub>
Mol%	5.0	32.0	4.0	30.0	3.0	15.0	1.0	2.0	3.0	5.0
Wt%	2.2	16.2	0.9	17.7	2.7	35.5	3.2	3.4	5.1	13.2

### Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the

Art Unit: 1755

reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-6 rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-8 of U.S. Patent No. 6,797,659. Although the conflicting claims are not identical, they are not patentably distinct from each other because the compositional and property ranges overlap. Overlapping ranges have been held to establish *prima facia* obviousness. MPEP 2144.05.

### Conclusion

The additional references cited on the 892 have been cited as art of interest since they are considered to be cumulative to or less than the art relied upon in the rejections above.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Elizabeth A. Bolden whose telephone number is 571-272-1363. The examiner can normally be reached on 9:30 am-6:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jerry Lorengo can be reached on 571-272-1233. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1755

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

**EAB** 

18 March 2006

J. A. CORENGO SUPERVISORY PATENT EXAMINER